

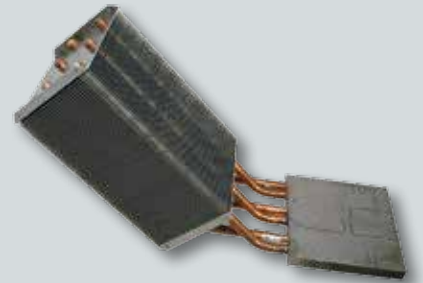


HEAT  
PIPES

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FAST-ACTING  
COOLING  
PERFORMANCE



# AIR-COOLED HEAT PIPES: A SELF-SUSTAINED COOLING SOLUTION

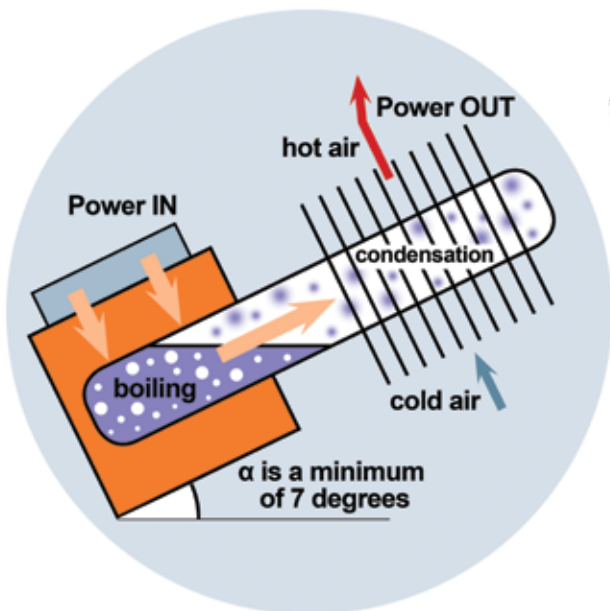
CUSTOM DESIGNED AND MADE TO FIT YOUR APPLICATION

## Heat Pipes - Instantaneous Cooling Action

The high heat losses from IGBT or SiC power devices can easily be conveyed outward via heat pipe cooling units. A heat pipe is a device that uses “phases change” to efficiently conduct large amounts of heat between two solid surfaces. A heat pipe consists of an enclosed tube containing a liquid (methanol, water) in a vacuum. The liquid absorbs thermal energy from the heat sources and boils rising towards the condenser. Air cools the condenser section, condensing the fluid back to a liquid which travels back to the evaporator by gravity. This is a sealed self sustaining process.

### Features:

- High thermal performance – superior to standard air cooled products
- Convection boiling resulting in instant cooling action
- Easy maintenance compared to liquid cooling systems, as heat pipes are self sustained devices and require no external water pumps or tubing
- Uniform temperature distribution under components
- Used in Transportation, Military, or any application requiring a robust cooling solution



**Mersen designs and builds prototypes to ensure our customers' performance needs are met.**

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